AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A 1,4 substituted cyclic amine derivative represented by the following compound of formula (I):

$$R^{1}$$
 B-C R^{2}

$$(CH_{2})_{n}$$

$$T-(CH_{2})_{m}-Y$$

$$(CH_{2})_{p}$$

$$(CH_{2})_{p}$$

$$(CH_{2})_{p}$$

wherein A, B, C, D, and T are the same or different from one another and each represents methine or nitrogen, provided that one and only one of them represents nitrogen;

the bond represented by the following formula:

represents a single or double bond;

Y and Z are the same or different from each other and each represents methine, nitrogen, a group represented by the following formula:

or a group represented by the following formula:

$$-N \longrightarrow 0$$

provided at least one of them represents nitrogen;

 R^1 and R^2 are the same or different from each other and each hydrogen, halogeno, hydroxy, represents alkylsulfonylaminoalkyl, lower halogenated-alkylsulfonylaminoalkyl, 1-hydroxy-1-(methoxypyridyl)methyl, 2-pyrrolidinon-1-yl, methoxypyridylcarbonyl, 1,3-propanesultum-2-yl, lower hydroxypiperidyl-carbonylalkyl, lower hydroxyalkylamidoalkyl, lower halogenated-alkylamidoalkyl, lower dihalogenatedalkylamidoalkyl, lower -- heteroarylamidoalkyl, lower hydroxyalkylamidoalkyl, optionally substituted amino, nitro, lower alkyl, lower alkoxy, lower acyl, lower alkoxyalkoxy, cyano, lower alkylsulfonyl, sulfonylamido, hydroxy-lower alkyl, hydroxy-lower alkoxy, lower alkylsulfonylamino, alkoxycarbonylamino, lower alkylalkylsulfonylamino, lower acylamino, optionally substituted aminoalkyl, optionally N-substituted lower acylaminoalkyl, substituted optionally substituted optionally aryl, arylsulfonylamino, lower alkylsulfonyloxy, hydroxyiminomethyl, (2pyrrolidon1-yl)methyl, (2-piperidon-1-yl)methyl, optionally substituted heteroaryl, optionally substituted aralkyl, optionally cycloalkylcarbonylaminoalkyl, substituted heteroarylalkyl, optionally substituted ureido, optionally substituted ureido-lower alkyl, succinimido, (succinimido-1-yl)-

thiocarbamoyllower alkyl, formyl, aromatic acyl, heteroarylcarbonyl, halogenated lower alkyl, (2-imidazolidinon -1-yl)methyl, (2,4-imidazolidinedion-3-yl)methyl, (2-oxazolidon3-(glutarimido-1-yl)methyl, optionally substituted yl)methyl, heteroarylhydroxyalkyl, cyano-lower alkyl, 1-hydroxy lower cycloalkyl, (2,4-thiazolidinedion-3-yl)methyl, optionally 4-piperidylmethyl, substituted heteroarylacyl, pyrrolidinylcarbonyl-lower alkyl, optionally substituted aminosulfonylalkyl, carboxy-lower alkyl, or lower alkylamidoalkyl; or alternatively R¹ and R² together may form optionally substituted alicycle, optionally substituted heterocycle or alkylenedioxy, provided these rings may be substituted;

R³ represents hydrogen, halogeno, lower alkyl, hydroxy, hydroxy-lower alkyl, lower alkoxy, formyl, optionally substituted aralkyloxy, hydroxy-lower alkoxy, optionally substituted sulfamoyl, or optionally N-substituted sulfamoyl-lower alkyl;

R⁴ represents hydrogen, lower alkyl, hydroxy-lower alkyl, lower alkoxyalkyl, optionally aryl-substituted aryloxyalkyl, or optionally aryl-substituted aralkyloxyalkyl;

R⁵ represents lower alkyl, lower acyl, lower alkoxycarbonyl, aromatic acyl, or a group represented by the following formula:

$$-0^{1}-(CH_{2})_{5}-O^{2}-R^{6}$$

wherein Q^1 and Q^2 are both single bonds, or one of them is a single bond while the other represents oxygen, carbonyl, a group represented by -NHCO-, a group represented by -NHSO₂-, or a group represented by >CH-R⁷, wherein R⁷ represents hydroxy, lower alkyl or halogeno:

s represents 0 or an integer of 1 to 6; and

R⁶ represents optionally substituted aryl, optionally substituted heteroaryl, optionally substituted benzoheteroaryl, 1,4-benzodioxanyl, 1,3-benzodioxolyl, benzothiazolyl, or cyano;

n represents 1;

m represents 0 or an integer of 1 to 6; and

p represents an integer of 1 to 3,

or a and pharmacologically acceptable salt salts thereof.

2. (Currently Amended) A 1,4 substituted eyelic amine derivative represented by the following compound of formula:

$$R - (CH2)rm - Y Z - R5$$

$$(CH2)p$$

wherein R represents a substituent of the formula:

$$\begin{array}{c|c}
R^1 & R^2 \\
\hline
R^3 & R^2
\end{array}$$
or
$$\begin{array}{c|c}
R^1 & R^2 \\
\hline
R^3 & R^3
\end{array}$$

wherein the bond represented by the following formula:

and R^1 , R^2 , R^3 , R^4 , R^5 , Y, Z, m, and p are each as defined in claim 1, and pharmacologically acceptable salts thereof.

- 3. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in compound of claim 1 or a pharmacologically acceptable salt thereof, wherein m is 0 and p is 2.
- 4. (Currently Amended) The 1,4-substituted cyclic amine derivative as set forth in compound of claim 1 or a pharmacologically acceptable salt thereof, wherein Y is methine and Z is nitrogen.

5. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in in compound of claim 1 or a pharmacologically acceptable salt thereof, which is a compound selected from among the following ones:

(267) $1-\{1-[2-(4-methoxyphenyl)ethyl]piperidin-4-yl\}-7-methoxy-$

1,2,3,4-tetrahydroquinoline,

(268) 1-{1-[2-(4-fluorophenyl)ethyl]piperidin-4-yl}-7-methoxy-1,2,3,4-tetrahydro-

 \rangle

quinoline,

(269) 1-[1-(4-cyanopropyl)piperidin-4-yl]-7-methoxy-1,2,3,4-tetrahydroquinoline,

(270) $1-\{1-[2-(2-thienyl)ethyl]piperidin-4-yl\}-7-methoxy-$

1,2,3,4-tetrahydroquinoline,

(271) 1-{1-[2-(4-fluorophenyl)ethyl]piperidin-4-yl}-7,8-dimethoxy-1,2,3,4-tetrahydroquinoline,

(272) $1-\{1-[2-(4-fluorophenyl)ethyl]piperidin-4-yl\}-7,8-methylenedioxy-1,2,3,4-$

tetrahydroquinoline,

(273) 1-{1-[2-(4-fluorophenyl)ethyl]piperidin-4-yl}-7-methoxy-8-methyl-1,2,3,4-

tetrahydroquinoline,

(274) 1-{1-[2-(4-fluorophenyl)-2-oxoethyl]piperidin-4-yl}-7-methoxy-1,2,3,4-

tetrahydroquinoline,

(275) 1-{1-[2-(4-fluorophenyl)-2-hydroxyethyl]piperidin-4-yl}-7-methoxy-1,2,3,4-

tetrahydroquinoline,

(276) 1-{1-[2-(4-fluorophenyl)-2-fluoroethyl]piperidin-4-yl}-7-methoxy-1,2,3,4-

tetrahydroquinoline, and

(283) 5-{4-[2-(4-fluorophenyl)ethyl]piperazin-1-yl}-5,6,7,8-tetrahydroisoquinoline.

- 6. (Currently Amended) A pharmaceutical composition comprising a therapeutically effective amount of the 1,4-substituted cyclic amine derivative or salt as set forth in compound of claim 1 or its salt in combination with a pharmaceutically acceptable carrier.
- 7. (Currently Amended) An agent for treating, and ameliorating, and preventing diseases against which serotonin antagonism is efficacious, which contain contains as the active ingredient the 1,4 substituted cyclic amine derivative as set forth in compound of claim 1 or a pharmacologically acceptable salt thereof.

- ameliorating, and preventing spastic paralysis, which comprises contain as the active ingredient the 1,4 substituted cyclic amine derivative as set forth in an effective amount of the compound of claim 1 or a pharmacologically acceptable salt thereof.
- 9. (Currently Amended) A muscle relaxant composition which contains as the active ingredient the 1,4 substituted cyclic amine derivative as set forth in an effective amount of the compound of claim 1 or a pharmacologically acceptable salt thereof.
- 10. (Currently Amended) A process for producing a 1,4 substituted cyclic amine derivative represented by the following compound of the formula:

$$\begin{array}{c|c}
R^1 & B - C & R^2 \\
A & D & R^4 \\
\hline
(CH_2)n & N - R^5 \\
\hline
(CH_2)_p & (CH_2)_p
\end{array}$$

wherein the bond represented by the following formula:

and A, B, C, D, R^1 , R^2 , R^3 , R^4 , R^5 , n, and p are each as defined in claim 1, which comprises removing, if necessary, the

protecting group from a 1,4-substituted cyclic amine derivative (IX) represented by the following formula:

wherein the bond represented by the following formula:

and A, B, C, D, R^1 , R^2 , R^3 , R^4 , n, and p are each as defined in claim 1; and Pr.G represents hydrogen or a protecting group, and then reacting the same with $L-R^5$ wherein R^5 is as defined in claim 1; and L represents a leaving group.

11. (Currently Amended) A process for producing 1,4substituted cyclic amine derivative (X), as set forth in a compound
of claim 1, which comprises reacting a fused cyclic amine
represented by the following formula:

$$R^1$$
 $B-C$ R^2
 A D
 $(CH_2)_n$ NH R^3

wherein the bond represented by the following formula:

and A, B, C, D, R^1 , R^2 , R^3 and n are each as defined in claim 1 with a cyclic ketone (VIII) represented by the following formula:

$$O = \begin{pmatrix} R^4 \\ N - Pr.G \\ (CH_2)_p \qquad (VIII) \end{pmatrix}$$

wherein R^4 , p, and Pr.G are each as defined in claim 1 in the presence of a reducing agent to thereby give a 1,4-substituted cyclic amine derivative (IX), removing, if necessary, the protecting group therefrom and further reacting the same with $L-R^5$.

12. (Currently Amended) A 4 substituted cyclic amine derivative represented by the following compound of the formula:

wherein the bond represented by the following formula:

and A, B, C, D, R^1 , R^2 , R^3 , R^4 , n, and p are each as defined in claim 1, provided that the case where R^1 , R^2 , R^3 and R^4 are all hydrogen atoms is excluded.

- which antagonizing serotonin antagonism is efficacious, which comprises administering an effective dose of the 1,4 substituted eyelic amine derivative as set forth in compound of claim 1, or a pharmacologically acceptable salt thereof, to a person in need of such treatment.
- 14. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in compound of claim 1, in which the bond represented by the following formula in the formula (I):

is a single bond, represented by the formula (XXI):

or a pharmacologically acceptable salt thereof.

15. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in compound of claim 1, in which m is 0 in the formula (I), represented by the formula (XXII):

or a pharmacologically acceptable salt thereof.

- 16. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in compound of Claim 1, in which m is 1 to 6 in the formula (I) or a pharmacologically acceptable salt thereof.
- 17. (Currently Amended) A 1,4 substituted cyclic amine derivative represented by compound of the formula (XXIII):

or a pharmacologically acceptable salt thereof.

18. (Currently Amended) The 1,4 substituted cyclic amine

derivative as set forth in compound of claim 1, in which the bond represented by the following formula in the formula (I):

_ _ _ _

is a double bond, represented by the formula (XXIV):

or a pharmacologically acceptable salt thereof.

19. (Currently Amended) The 1,4 substituted cyclic amine derivative as set forth in compound of claim 1, in which the T is nitrogen.